

REMARKSClaim Rejections Under 35 U.S.C. § 102

Claims 1-8, 10-11 and 23 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Fried et al.*, (U.S. Patent No. 6,657,252). Claims 1-11 and 23 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Forbes* (U.S. Patent No. 6,830,963). Applicant respectfully traverses this rejection.

The limitations of claim 6 have been included in claims 1, 9, and 23. Claim 6 has been canceled, without prejudice, to avoid duplication. Claims 1, 9, and 23 have also been amended to make clear that the plurality of stored charges are in different locations in the gate insulator.

Forbes cannot be used as prior art against the present application. Under § 102(e), the invention has to be described “by another” on an application for patent or in a granted patent. The present application not only has the same inventorship (i.e., Leonard Forbes) but also the same Assignee (i.e., Micron Technology, Inc.). Additionally, there is no statutory bar under § 102(b) since *Forbes* patent was issued (i.e., 12/14/2004) less than one year prior to the filing date of the present application (i.e., 11/17/2003) as required by § 102(b). Therefore, *Forbes* does not qualify as prior art against the present application.

Fried et al. disclose a CMOS Fin Field Effect Transistor having non-volatile random access memory (NVRAM) capability. *Fried et al.* neither teach nor suggest Applicant’s invention as claimed in the presently amended claims.

The Examiner states that *Fried et al.* disclose a “normally fully depleted body region” as claimed in the present claims. However, *Fried et al.* clearly state in col. 3, lines 8 – 10 that the FinFET is fully depleted during the operation of the semiconductor device. It is well known in the art that a normally fully depleted device does not have the same structure or the same operating characteristics as a device that requires biasing to become depleted.

The Examiner also states that *Fried et al.* disclose a planar device in Figures 1 – 11. However, these figures clearly show a vertical structure. Additionally, col. 2, lines 49 – 52 of *Fried et al.* states that the disclosed invention is a vertical structure. In fact, as discussed at col. 2, lines 46 – 48, the very term “FinFET” connotes a “fin-like” structure that is vertical in nature.

Fried et al., at col. 5, lines 39 – 55, describe the fabrication of the floating gate 115. This passage clearly states that the floating gate is comprised of polysilicon. Applicant’s invention as claimed is to a nitride read only memory (NROM) device. As is well known in the art, polysilicon is not a localized charge storage material as is the nitride and other gate insulator materials of the present invention.

Claims 2 – 5 claim various gate insulator structures that are neither disclosed nor suggested by *Fried et al.* In fact, as discussed previously, *Fried et al.* only teach the use of polysilicon for charge storage.

Mohsen et al., in Figure 9a – 9e as suggested by the Examiner, show a standard CMOS device. There is no teaching or suggestion that the device in *Mohsen et al.* uses a silicon-on-insulator structure as claimed in the present claims. Also, *Mohsen et al.* neither teach nor suggest the use of a normally fully depleted body region as claimed in the present application. Additionally, the various gate insulator structures claimed in claims 2 – 5 are neither taught nor suggested by *Mohsen et al.* *Mohsen et al.*, therefore, neither teach nor suggest Applicant’s invention as claimed in the amended claims.

Claim Rejections Under 35 U.S.C. § 103

Claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Fried et al.*, (U.S. Patent No. 6,657,252). Applicant respectfully traverses this rejection.

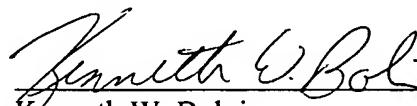
Fried et al. has been previously shown not to anticipate Applicant's invention as claimed in the amended claims. Therefore, the Examiner's statement that the addition of the thickness of the SOI layer would be obvious is no longer relevant since the remaining elements of claim 9 are novel.

CONCLUSION

For the above-cited reasons, Applicant respectfully requests that the Examiner allow the claims of the present application. If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 312-2211. No new matter has been added and no additional fee is required by this amendment and response.

Respectfully submitted,

Date: 10/5/05



Kenneth W. Bolvin
Reg. No. 34,125

Attorneys for Applicant
Leffert Jay & Polglaze
P.O. Box 581009
Minneapolis, MN 55458-1009
T 612 312-2200
F 612 312-2250